

MEETING NOTES | July 12, 2012

Santa Rosa Plain Basin Advisory Panel

<http://www.scwa.ca.gov/srgroundwater/>

Meeting in Brief

Climate Change Presentation – Dr. Lorraine Flint, USGS, and Dr. Lisa Micheli, Pepperwood Reserve, presented on climate change scientific research and the role watershed management in climate change adaptation. The presentation will be posted on the web site.

Planning Process Overview - The group is on schedule to have a draft groundwater management plan developed in summer or fall 2013. The group will next start working on monitoring and then develop management components in the January through March timeframe. The technical advisory committee will begin meeting to consider detailed technical information and make recommendations for the full Panel's consideration.

Formal Public Meeting to Occur in September Timeframe – Panel members refined a draft resolution that would go before the Sonoma County Water Agency board of directors to formally commence developing a groundwater management plan. Water Agency staff will wait to submit the resolution pending the outcome of a member who requested more time to consider the governance proposal.

Members Conducting Briefings with Constituent Organizations and Soliciting Input on draft Goals and Objectives - Members will conduct briefings with their member organizations in August – September. The primary goal of the briefings is to inform about the planning process and solicit input on the draft goals and objectives. Members will report what they learned at future meetings. At its September meeting, Panel members will organize to do outreach with a broader range of organizations.

Action Items

Timeframe	Name	Action Item
Aug-Sept	Panel Members	Conduct briefings with organizations that you represent

Next Meeting: September 13, 9:00 – 12:00

- Constituent briefings – report back
- Monitoring programs

Climate Change Presentation

Dr. Lorraine (Lori) Flint, USGS, discussed climate change, global climate models, and hydrologic responses to climate change. The climate is warming more quickly than original predictions. Most scientists concur that climate warming manifests in extreme weather events – floods, droughts, etc. Dr. Flint is working on a global model and applying the model at a local scale. Dr. Flint can then analyze vegetation in local environments, basin-scale water availability, among other variables. She is also working on a local basin characterization model,

which uses climate data to analyze potential and actual evapotranspiration, recharge and runoff, and water deficits.

In Sonoma County, Dr. Flint is using both the global and basin models to analyze different scenarios to understand the potential implications of global warming in the county. All predict that temperatures will rise, and more droughts are projected in the future. Because of the implications on evapotranspiration and the nature of weather events under climate change, Dr. Flint anticipates greater demands for irrigation. The models project shorter wet seasons and longer dry seasons. Enhancing recharge is critical to be resilient with these changing conditions. The ability to store groundwater during wet periods will prove instrumental to capturing rainfall during the wet season.

Dr. Lisa Micheli is the Pepperwood Preserve Executive Director. The mission of the Pepperwood Preserve is to advance science-based conservation. Formerly on the Sonoma Valley Basin Advisory Panel, she discussed how the USGS study provided a critical scientific foundation for developing the groundwater management plan, in particular, management actions.

The Pepperwood Preserve is part of the North Bay Climate Adaptation Initiative, a coalition of natural resource manager, policy makers, and scientists committed to working together to create positive solution to the challenge of climate adaptation. Parts of the Initiative's objectives include providing managers and local decision makers with information, methods, and guidance to adapt to climate change.

In response to questions, the following insights were discussed.

The impact of changing precipitation pattern on vegetation also considers slope, aspect and vegetation type.

The USGS model is based on 30 years of data. Another study of tree rings in the Russian River indicates decadal droughts. USGS would be interested in integrating this into its work if funding permitted.

Sonoma County policy could be impacted by growth in agriculture. The benefits of agriculture and recharge are a connection to consider. UC Davis has done work on recharge mapping that informs understanding on climate change and land use planning.

Partnerships and voluntary efforts play an important role in adapting to climate change and building resiliency. Sonoma County Water Agency is working with weather experts and USGS and NOAA to link the climate change model to GSFlow model to help the Water Agency think about managing resource availability and demand.

USGS Modeling Scenarios

The Basin Advisory Panel reviewed potential scenarios that either USGS, as part of its contract, or the Water Agency, in the near future, could analyze to inform the Panel's thinking about potential management options. The scenarios that the study's funding partners have been considering attempt to "bookend" potential future realities: dry conditions; enhanced water management conservation and recycling; reduced water conservation and increased groundwater use, with an overlay of changing climatic conditions. While USGS has a limited number of scenarios that it can run during its current study, the Water Agency anticipates

being able to conduct additional analyses in the future. Study partners will consider the Panel's inputs as it finalizes the scenarios that will be analyzed in the near term.

The Panel made the following suggestions for consideration:

- A base case or no action alternative could be helpful.
- Panel member supports limiting the climate change scenarios if they can be bracketed to look at "best" and "worst" cases.
- One member prefers Scenario 2, increasing recycled water reflects existing activities and investment and increasing conservation, which is cost effective. He appreciates the focus on conservation.
- One member's priorities: Scenario 2 and 3 along with 5
- Another member's priorities: Scenario 3 (enhanced recharge) and then Scenario 5 and 4 for bracketing.

Draft Goals & Objectives for the Groundwater Management Plan

Version 6/12/2012 Reviewed

The plan's goals and objectives will remain draft until the end of the process. The Panel refined the goals and objectives. Now, Panel members will share the goals and objectives with member organizations. At a future meeting, the Panel will consider feedback and then further refine the goals and objectives. Once the Panel has a complete plan, the Panel will revisit the goals and objectives again to ensure that they reflect all the insights gained throughout the planning process.

Members discussed some additional comments on the goals and objectives. Defining beneficial uses is important in the goal statement. Everyone should remember that agriculture is all forms of agriculture, not just grape growers.

One member mentioned that s/he did not support monitoring and modeling land subsidence if it wasn't really a problem. The Water Code is a bit unclear about requirements; however, some members have expressed concern about this issue. The Panel previously asked that the technical advisory committee consider existing research and make recommendations back to the panel on how to address the issue.

Resolution and Public Meeting on Governance Proposal

Panel members refined a draft resolution that would go before the Sonoma County Water Agency board of directors to formally commence developing a groundwater management plan. Water Agency staff will wait to submit the resolution pending the resolution of a member who requested more time to consider the governance proposal. Refinements to the resolution include:

- Specify method for public notice should Water Agency terminate planning
- Add a "whereas" related to the cooperative funding agreement among water suppliers

The group discussed changing the language to say that the Basin Advisory Panel is the decision-making body. Although the Panel will contemplate and approve all activities associated with the implementation of the groundwater management plan. The resolution cannot say this because the Panel cannot legally provide direction to the Water Agency. However, the governance proposal stipulates that the Panel would remain in existence throughout plan implementation, and the Panel would review and approve any changes to the groundwater management plan.